

Abstract of the Disclosure

A catalytically activated transient decomposition propulsion system provides thrust by decomposing flow controlled propellant in contact with a catalyzing agent using a fixed volume of liquid propellant that is placed in contact with the catalyst within the decomposition chamber by a calibrated flow control valve. After injecting the liquid propellant into the decomposition chamber, the valve returns to the closed position while surface tension holds the liquid within the decomposition chamber until complete decomposition and exhaust of the warm gaseous products through a converging and diverging nozzle occurs. The increasing and decreasing transient pressure in the decomposition chamber changes each cycle in response to flow control valve actuation as the decomposition process is repeated.

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